WEST Search History

DATE: Thursday, November 20, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L15	L14 and @AD<19990921	5	L15
L14	l11 and (digital adj4 (broadcast or broadcasting))	12	L14
L13	l11 and l1	0	L13
L12	l11 and l4	0	L12
L11	(store or storing) near8 (program or method) near8 (process or processing) near8 type	667	L11
L10	l3 and ((determine or determining) near5 type)	1	L10
L9	l7 and ((determine or determining) near5 type)	1	L9
L8	L7 NOT 3	4	L8
L7	L5 and @AD<19990921	17	L7
L6	L5 and changer	0	L6
L5	((image or video) near5 (sound or voice) near5 data) same ((multiplex or multiplexed) near7 signal) same ((separate or separating) near6 signal)	22	L5
L4	((image or video) near5 (sound or voice) near5 data) same ((multiplex or multiplexed) near7 signal)	255	L4
L3	l2 and ((separate or separating) near6 signal)	9	L3
L2	L1 and @AD<19990921	34	L2
L1	(digital adj4 (broadcast or broadcasting)) same (transport adj4 stream) same ((multiplex or multiplexed) near7 signal)	65	L1

END OF SEARCH HISTORY

L15: Entry 1 of 5 File: USPT Dec 10, 2002

DOCUMENT-IDENTIFIER: US 6493769 B1
TITLE: Stream information processing and method and providing medium

Application Filing Date (1):
19990830

Detailed Description Text (24):
FIG. 11 shows an example structure of the controller 1. A CPU 61 executes various types of processing according to a program stored in a ROM 62. A RAM 63 stores, as required, a program and data necessary for the CPU 61 to execute the various types of processing. An input-and-output interface section 64 is connected to an input section 65 formed of a keyboard, a mouse, and other items, and to an output section 66 formed of a CRT, a speaker, and other items. The input-and-output interface section 64 executes interface processing between the CPU 61 and the input section 65, and between the CPU 61 and the output section 66. An IEEE-1394 interface section 67 executes interface processing between the IEEE-1394 bus 4 and the CPU 61.

Detailed Description Text (28):
The data structure of the subunit identifier descriptor in the AV/C command set will be described below by referring to FIG. 12 to FIG. 15. FIG. 12 shows the data structure of the subunit identifier descriptor. As shown in FIG. 12, the subunit identifier descriptor is formed of a list having a hierarchical structure. A list refers to, for example, a channel to be received for a tuner or a recorded musical piece for a disc. A list at the most upper layer in a hierarchical structure is called a root list. For example, a list 0 is a root for its lower lists. Lists 2 to (n-1) also serve as root lists. The number of root lists equals that of objects. An object refers to, for example, each channel in digital broadcasting when an AV unit serves as a tuner. All lists in one layer share common information.

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L15: Entry 3 of 5 File: USPT Sep 5, 1995

DOCUMENT-IDENTIFIER: US 5448300 A
TITLE: Image signal processing apparatus for processing multiplex image signal formats

Application Filing Date (1):
19930616

Brief Summary Text (6):
In the future, in order to transmit the image signal, which uses the present ground wave and has a screen with an aspect ratio of 19:9, corresponding to the screen size, whose horizontal side is longer than the vertical side as compared with the present used screen size, and in order to transmit as many broadcasts as possible per one broadcast satellite and effectively use the satellite, the digital broadcast in which an image is digitized, and data-compressed so as to transmit the image signal in as small band as possible has been planned.

Drawing Description Text (18):
FIG. 17 is a block diagram for explaining an encoder system of a digital broadcast in which the image signal is encoded and compressed and transmitted;

Drawing Description Text (19):
FIG. 18 explains a code rate in the digital broadcast, respectively;

Drawing Description Text (20):
FIG. 19 is a view for explaining a decode system for receiving the digital broadcast, respectively;

Drawing Description Text (21):
FIG. 20 is a block diagram for explaining an inverse DCT calculation processing means of the digital broadcast by use of the ALU by a functional expression;

Drawing Description Text (22):
FIG. 21 is a flow chart for explaining the operation of the inverse DCT calculation processing means of the digital broadcast by use of inverse DCT calculation processing means;

Detailed Description Text (4):
On the other hand, in a case where the antenna 11 receives a digital broadcasting radio wave in which an image signal is digitized and transmitted, the image signal obtained from the antenna 11 is passed through the tuner IF amplifier 12, sent to a QAM demodulator 15 (amplitude modulation using two orthogonal carriers), and demodulated, thereby the signal is converted to a bit string having binary data (digital image data), and outputted to the switch circuit 14.

Detailed Description Text (75):
Next, prior to the explanation of the reception of the digital broadcast, the outline of the digital broadcast will be explained as follows:

Detailed Description Text (76):
In the digital broadcast, the image is encoded, and the amount of data is compressed, so that data is transmitted. FIG. 17 shows an encoder system for such image encoding and compressing. Reference numeral 66a is an input terminal. Digital image data, which is obtained by converting an optical image of an object imaged by, for example, a camera, to an electrical image signal by a CCD (Charge Coupled Device) and A/D-converting the image signal, is supplied to the input terminal 66a.

Detailed Description Text (83):
FIG. 19 shows a system for receiving a digital broadcast, that is, a decoder system of image coding and compression.

Detailed Description Text (126):
FIG. 33 shows an image decoder circuit which performs the same function as the image decoder DSP incorporated in the embodiment of FIG. 1. The circuit shown in FIG. 33 is characterized in that the decoding scheme can be switched merely by operating a switch circuit, during digital broadcasting reception and NTSC broadcasting reception. The circuit can decode both digital broadcast data and NTSC broadcast data, without using a DSP which executes programs to decode image data.

Detailed Description Text (146):
As has been described, in the image decoder circuit of FIG. 33, the decoding scheme can be switched merely by operating a switch circuit, during digital broadcasting reception and NTSC broadcasting reception. The circuit can therefore decode both digital broadcast data and NTSC broadcast data, without using a DSP which executes programs to decode image data.

Other Reference Publication (4):
Pires et al, "Digital Broadcasting TV Decoding in the Presence of Errors: preliminary Simulation Study", Proceedings of the 1993 Picture Coding Symposium; Mar. 17-19, 1993, p. 17.3/b and FIG. 1.

CLAIMS:

2. The processor according to claim 1, wherein said processor further comprises:

storing means for storing said plurality of processing programs, each corresponding to a type of image signal; and

reading means for reading said selected at least one processing program from said storing means; and

wherein said decoding means comprises decode-processing means for decode-processing said input image data based upon said selected at least one processing program read by said reading means.

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L15: Entry 5 of 5 File: DWPI Dec 22, 1993

DERWENT-ACC-NO: 1993-407274
DERWENT-WEEK: 199927

TITLE: Image signal processor providing decode-processing to several types of image signals transmitted by different television system - converts input analogue image signal into digital image signal, and digital input image signal to digital image signal having fixed amount of data for fixed period

Basic Abstract Text (3):
USE/ADVANTAGE - Reproducing and processing image signals using DSP. Decodes digital broadcast data and NTSC broadcast data without using DSP which executes programs to decode image data.

PF Application Date (1):
19930616

PF Application Date (2):
19930706

PF Application Date (3):
19920616

PF Application Date (4):
19920616

PF Application Date (5):
19920616

PF Application Date (6):
19920616

PF Application Date (7):
19920616

PF Application Date (8):
19920616

PF Application Date (9):
19930616

PF Application Date (10):
19930616

Equivalent Abstract Text (2):
The decoder also decode-processes the input image data based upon selected processing programs, at least one of which corresponds to the selected digital image data. A program memory (33) stores the processing programs, each program corresponding to a type of image signal and read from the memory by a program loader (34). The decoder decode-processes the input image data based upon the selected processing program.

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L10: Entry 1 of 1 File: USPT Oct 15, 2002

DOCUMENT-IDENTIFIER: US 6467093 B1
TITLE: Method and apparatus for receiving digital broadcasts

Application Filing Date (1):
19990203

Detailed Description Text (43):
Upon receiving the transport stream, the demultiplexer 132 separates and extracts a video signal and an audio signal of a target program from the transport stream, and performs a set of processing, such as MPEG decoding, on the signals. Thus, an image and a sound of the target program can be output and audio-visually observed through the monitor receiver.

Detailed Description Text (49):
Upon receiving the transport stream, the demultiplexer 132 separates and extracts a video signal and an audio signal of a target program from the transport stream, and performs a set of processing, such as MPEG decoding, on the signals. Thus, an image and a sound of the target program can be output and audio-visually observed through the monitor receiver.

Detailed Description Text (64):
Thereafter, the controller 30 waits for the digital external unit to be selected (step 105), and determines which type of digital external unit has been selected (step 106).

CLAIMS:

12. A digital broadcast receiving apparatus for receiving broadcast program signals, comprising: a front end, responsive to the received broadcast program signals, for providing a multiplexed transport stream of compressed data representing a plurality of multiplexed programs; a demultiplexer for providing a selected one of the plurality of multiplexed programs; a decompressor for decompressing the selected one of the plurality of multiplexed programs and providing decompressed data; a digital interface for receiving the multiplexed transport stream of compressed data, the decompressed data, and compressed data associated with the selected one of the plurality of multiplexed programs, wherein the digital interface decompresses the compressed data associated with the selected one of the plurality of multiplexed programs; and wherein the digital interface provides, as output, each of the compressed data and the decompressed data to a digital external unit; and a control unit for controlling, based on an instruction from a user, a selection of an output from said digital interface to said digital external unit, said output being selected from the compressed data and the decompressed data.

13. A digital broadcast receiving apparatus for receiving broadcast program signals, comprising: a front end, responsive to the received broadcast program signals, for providing a multiplexed transport stream of compressed data representing a plurality of multiplexed programs; a demultiplexer for providing a selected one of the plurality of multiplexed programs; a decompressor for decompressing the selected one of the plurality of multiplexed programs and providing decompressed data; a plurality of digital interfaces, each receiving he multiplexed transport stream of compressed data and the decompressed data, and wherein the digital interface provides each of the compressed data and the decompressed data as output to an associated digital external unit; and a control unit for controlling, based on an instruction from a user, a selection of an output from one of the plurality of digital interfaces the associated digital external unit said output being selected from the compressed and the decompressed data.

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L3: Entry 1 of 9 File: USPT Oct 15, 2002

DOCUMENT-IDENTIFIER: US 6467093 B1
TITLE: Method and apparatus for receiving digital broadcasts

Application Filing Date (1):
19990203

Detailed Description Text (43):
Upon receiving the transport stream, the demultiplexer 132 separates and extracts a video signal and an audio signal of a target program from the transport stream, and performs a set of processing, such as MPEG decoding, on the signals. Thus, an image and a sound of the target program can be output and audio-visually observed through the monitor receiver.

Detailed Description Text (49):
Upon receiving the transport stream, the demultiplexer 132 separates and extracts a video signal and an audio signal of a target program from the transport stream, and performs a set of processing, such as MPEG decoding, on the signals. Thus, an image and a sound of the target program can be output and audio-visually observed through the monitor receiver.

CLAIMS:

12. A digital broadcast receiving apparatus for receiving broadcast program signals, comprising: a front end, responsive to the received broadcast program signals, for providing a multiplexed transport stream of compressed data representing a plurality of multiplexed programs; a demultiplexer for providing a selected one of the plurality of multiplexed programs; a decompressor for decompressing the selected one of the plurality of multiplexed programs and providing decompressed data; a digital interface for receiving the multiplexed transport stream of compressed data, the decompressed data, and compressed data associated with the selected one of the plurality of multiplexed programs, wherein the digital interface decompresses the compressed data associated with the selected one of the plurality of multiplexed programs; and wherein the digital interface provides, as output, each of the compressed data and the decompressed data to a digital external unit; and a control unit for controlling, based on an instruction from a user, a selection of an output from said digital interface to said digital external unit, said output being selected from the compressed data and the decompressed data.

13. A digital broadcast receiving apparatus for receiving broadcast program signals, comprising: a front end, responsive to the received broadcast program signals, for providing a multiplexed transport stream of compressed data representing a plurality of multiplexed programs; a demultiplexer for providing a selected one of the plurality of multiplexed programs; a decompressor for decompressing the selected one of the plurality of multiplexed programs and providing decompressed data; a plurality of digital interfaces, each receiving he multiplexed transport stream of compressed data and the decompressed data, and wherein the digital interface provides each of the compressed data and the decompressed data as output to an associated digital external unit; and a control unit for controlling, based on an instruction from a user, a selection of an output from one of the plurality of digital interfaces the associated digital external unit said output being selected from the compressed and the decompressed data.

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Generate Collection

L3: Entry 2 of 9 File: USPT Sep 24, 2002

DOCUMENT-IDENTIFIER: US 6456782 B1
TITLE: Data processing device and method for the same

Application Filing Date (1):
19990826

Detailed Description Text (5):
In this MPEG2 system, a format is standardized as follows so as that program information for multiple channels can be transmitted by time-division-multiplexing numbers of separate encoded streams with TS packets each having the comparatively short transmission unit. That is, a header part of the TS packet has content identification information on its packet as program specific information PSI. And in the receiver that receives the digital broadcast signal S1 performs decoding by separating and extracting the packets required to reproduction using the PSI.

Detailed Description Text (72):
In this embodiment, a digital broadcast signal S10 formed of the transport stream DT4 which has already been multiplexed by another broadcast station is input to the demodulator 53 via the antenna 52, and is demodulated with a predetermined method by the demodulator 53, and then the restored transport stream DT4 is transmitted to the multiplexer 51.

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L3: Entry 3 of 9 File: USPT Aug 13, 2002

DOCUMENT-IDENTIFIER: US 6434171 B1
TITLE: Digital multiplex transmission apparatus

Application Filing Date (1):
19981006

Brief Summary Text (3):
In CATV broadcasting or CS satellite digital broadcasting, etc., audio/video information of a plurality of programs in which the MPEG-2 TS (transport stream) format is used as the logic format and service information (SI) is multiplexed and transmitted, via a network, to a digital broadcast receiving terminal (referred to as a "digital set-top box" or "DSTB") installed in one's home. A subscriber uses the DSTB to receive the multiplexed signal and enjoy a desired program. Examples of programs include digital television broadcast programs, digital audio broadcast programs and on-demand service programs. Various tables make up the service information SI necessary for selecting a desired program from a plurality of programs multiplexed by the MPEG-2 format, decoding the program and reproducing it.

Detailed Description Text (23):
The second tuner 61, which is for receiving various commands and service information SI" sent from the DSTB control unit, receives the high-frequency signal f.sub.c and converts this signal to a baseband signal. A demodulator 62 subjects the modulated signal of the baseband to QPSK demodulation. A QPSK quadrature modulator 63 subjects a carrier wave to quadrature modulation by billing information, participation information and DSTB status information, and a frequency converter 64 up-converts the modulated signal to the high-frequency signal f.sub.c. The apparatus further includes a ROM 65, a RAM 66 and a CPU 67 for controlling the overall DSTB. By way of example, the CPU 67 controls the demultiplexer 45 based upon program selection data that has entered from a remote controller, thereby causing the demultiplexer 45 to separate and output the audio/video signal of a program, which has been selected by a user, from the MPEG-2 TS. Further, the CPU 67 creates billing information, participation information and construction status information and stores the information in the smart card 54. When a billing-information collection command, participation-information collection command or construction mode command is received from the DSTB control unit, the CPU 67 reads the information out of the smart card 54 and communicates it to the DSTB control unit. Further, the CPU executes descrambling processing, and processing for restoring the service information SI".

Detailed Description Text (50):
The demultiplexer 45 analyzes the audio/video selection information, separates the audio/video signals (audio/video MPEG-2 TS) specified by this information and sends the signals to the audio decoder 47a and video decoder 47b.

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L3: Entry 4 of 9 File: USPT Apr 16, 2002

DOCUMENT-IDENTIFIER: US 6373527 B1
TITLE: High definition television for simultaneously displaying plural images contained in broadcasting signals of mutually different broadcasting systems

Application Filing Date (1):
19980702

CLAIMS:

9. A high definition television (HDTV) for displaying on a screen images contained in a high definition (HD) digital broadcasting signal and an analog broadcasting signal input via an antenna or an external input port, the HDTV comprising:

a first broadcasting signal processor for restoring a first image signal which is an image signal contained in the HD digital broadcasting signal;

a second broadcasting signal processor for restoring a second image signal which is an image signal contained in the analog broadcasting signal;

a host computer;

a first format converter for converting the frame format of the first image signal restored by the first broadcasting signal processor into a predetermined frame format under the control of the host computer;

a second format converter for converting the frame format of the second image signal restored by the second broadcasting signal processor into the predetermined frame format;

an image signal synthesizer for synthesizing the first and second image signals format-converted by the first and second format converters into a single picture-in-picture (PIP) image signal; and

a display module for visually displaying the PIP image signal on the screen, wherein said first broadcasting signal processor comprises:

a tuner for modulating only the broadcasting signal of a desired channel among the broadcasting signals received via the antenna into an intermediate frequency (IF) signal;

an IF module for modulating the broadcasting signal modulated into the IF signal by the tuner into a baseband broadcasting signal;

a first analog-to-digital (A/D) converter for A/D converting the HD digital broadcasting signal modulated into the baseband broadcasting signal by the IF module;

an equalizer for equalizing the HD digital broadcasting signal converted into a digital signal by the first A/D converter;

a channel decoder for channel-decoding the HD digital broadcasting signal equalized by the equalizer;

a demultiplexer for separating the first image signal from the HD digital broadcasting signal channel-decoded by the channel decoder; and

an image signal decoder for receiving and decoding the first image signal separated from the HD digital broadcasting signal by the demultiplexer, and

wherein said IF module outputs the broadcasting signal to the second broadcasting signal processor when the broadcasting signal received from the antenna is an analog broadcasting signal.

11. The HDTV according to claim 9, wherein said HD digital broadcasting signal is a multiplexed signal by a transport stream (T/S) encoder, and said demultiplexer is a T/S decoder.

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L3: Entry 6 of 9 File: USPT Feb 6, 2001

DOCUMENT-IDENTIFIER: US 6185228 B1
TITLE: Receiving apparatus for digital broadcasting signal and receiving/recording/reproducing apparatus thereof

Application Filing Date (1):
19971205

Brief Summary Text (7):
To achieve this object, a digital broadcasting signal receiving apparatus, according to an aspect of the present invention, is provided channel decoder for receiving digital transfer information and for demodulating the received digital transfer information into a bit stream having a predetermined packet structure, the digital transfer information being produced by that a plurality of logical channel signals constituted by video, audio, and data are multiplexed as digital information on a single bit stream having a predetermined packet format and are transferred, first packet separating apparatus for extracting a designated packet from a bit stream outputted from the channel decoding means a source decoder for decoding a logical channel signal outputted from the first packet separating apparatus to output the decoded logical channel as a television signal, second packet separating apparatus for extracting at least a portion of the designated packets from the bit stream outputted from the channel decoder output apparatus for outputting a bit stream output from the second packet separating apparatus toward a recording/reproducing apparatus, input apparatus for supplying a bit stream derived from the recording/reproducing apparatus to the first packet separating apparatus and control apparatus for controlling operations of the first packet separating apparatus and the second packet separating apparatus.

Detailed Description Text (8):
An example of the operations executed in the first demultiplexer 404 is shown in a flow chart of FIG. 3. At a first step 201, an observer enters a desirable logical channel. The logical channel implies such a general name for combining video and audio information for constituting one program, and corresponds to a television channel, used in the conventional analog broadcasting system. Generally speaking, in a digital broadcasting system, a single frequency at which a plurality of programs are multiplexed is referred to as a physical channel. At the next step 202, for instance, a PAT(Program Association Table) is received, which corresponds to one of packets for constituting the multiplexed signal (will be referred to as a "TS(Transport Stream)" hereinafter) shown in FIG. 2 under reception. It should also be noted that "PAT" is equal to one of the tables contained in PSI(Program Specific Information) defined by the international standard rule MPEG2. Also, PID indicative of being PAT is defined to have a specific value. As a consequence, for instance, when PID of PAT is previously stored in the ROM 419, the first demultiplexer 404 can receive the PAT, irrelevant to the information contained in the signal under reception. At a subsequent step 203, a check is made as to whether or not a desirable logical channel is contained in the added data of the PAT received at the step 202. If the desirable logical channel is present, then the process operation is advanced to a step 207. Conversely, when the desirable logical channel is not present, the process operation is advanced to a step 204. At this step 204, an NIT(Network Information Table) corresponding to one of PSI is received to acquire a physical channel containing the desirable logical channel, and in the NIT, a relationship between the physical channel and the logical channel contained in the added data is described. Then, at a step 205, the process operation is advanced to the physical channel acquired at the step 204. In the actual circuit, the physical channel is advanced by setting such a frequency to be selected into the tuner 401 by the control means 409. Thereafter, at a step 206, a PAT is received which is equal to one of packets for constructing the multiplexed signal TS in the advanced physical channel. Upon receipt of the PAT, at the next step 207, a PMT(Program Map Table) is acquired, and such a PMT containing the above-described PID is received. In the PMT, a PID(Packet ID) such as the video and the audio for constituting the desirable logical

channel entered at the step 201 is described. In this case, the PMT is constructed of a header and the region of the added data in FIG. 2B, and is equal to one of the PSI tables. Also, in the PID, a packet PID for such as a PCR(Program Clock Reference) is described, and the PCR indicates the video, the audio, and the time information, which constitute each of the logical channels contained in the TS under reception. Accordingly, at a step 208, the packet PID for such as the video, the audio, and the PCR of the desired program is acquired. The PID subsequently acquired is set to the first demultiplexer 404 shown in FIG. 1 at a step 209, a desirable video stream and a desirable audio stream are received and then are entered into the MPEG2 decoder 405 so as to be decoded therein.

Detailed Description Text (27):
FIG. 11 is a schematic block diagram for showing an arrangement of a digital broadcasting signal receiving/recording/reproducing apparatus according to a seventh embodiment of the present invention. In FIG. 11, reference numeral 463 is a transfer rate detecting means. In FIG. 11, similar to the embodiment shown in FIG. 1 or FIG. 5, the second demultiplexer 413 extracts the information such an the video and the audio, and also the added data such as the program information in response to the instruction issued from the control means 409. The TS(Transport Stream) outputted from the second demultiplexer 413 is inputted to the transfer rate detecting means 463. When the transfer rate detecting means 463 detects that the transfer rate of the inputted TS exceeds a preset specific value, the transfer rate detecting means 463 outputs such a signal to the control means 409 by notifying such a fact that the transfer rate exceeds the preset value. When the notification signal is entered from the transfer rate detecting means 463, the control means 409 controls the second demultiplexer 413 in such a manner that the information not for directly giving the influence to the display of the program is not extracted in accordance with a preset priority order. In other words, for example, when the transfer rate of the TS outputted from the second demultiplexer 413 exceeds a preset value, the extracting operation of the program information is stopped. As a consequence, the transfer rate of the multiplexed signal outputted from the second demultiplexer 413 becomes smaller than, or equal to a constant value.

Detailed Description Text (35):
The digital signal which is obtained by performing the error correction of the input signal in the above-described manner is inputted via the switch 505 to the first packet separating circuit 506. Generally speaking, the digital satellite broadcasting system as explained in the present invention is featured in that a plurality of programs can be multiplexed on a single radio wave which is relayed by a radio wave transponder (not shown) mounted on a satellite. A desired program is selected from the multiplexed program by the first packet separating circuit 506. A digital signal separated by the first packet separating circuit 506 is entered into the MPEG2 decoder 507. The MPEG2 decoder 507 decompresses the compressed digital signal to reproduce both a digital video signal before being compressed and a digital audio signal before being compressed. The reproduced digital video signal and the reproduced digital audio signal are converted into analog video and audio signals, respectively, by the output circuit 514, which will then be outputted from the video/audio output terminal 518. The above-described operations are controlled by the system controller 513.

Detailed Description Text (37):
Next, a description will now be made of a sequential operation for recording the signal received via the second packet separating circuit 509 by the recording/reproducing apparatus 512, and also for reproducing the signal recorded on the recording/reproducing apparatus 512.

Detailed Description Text (38):
The second packet separating circuit 509 corresponds to a means for extracting data which is required when the observer reproduces only this desired program during the reproducing operation after being recorded. During the reproducing operation, since a packet is needed in addition to the signals extracted by the first packet separating circuit 506, another stream different from the program stream is required. In the ninth embodiment of FIG. 15, in addition to the respective packets such as the above-described PAT, PMT, video data and audio data, both a PCR(Program Clock Reference) equal to data indicative of time information required in the MPEG2 decoder 507, and information related to a desired program (namely, program presently observed by observer) among the program related information are extracted, and thereafter are recorded on the recording/reproducing apparatus 512 via the packet replacing circuit 510 and the interface circuit 511.

Detailed Description Text (43):
A separated stream 45 outputted from the second packet separating circuit 509 is sequentially stored in the buffer 44 in unit of several bytes. In FIG. 17, the data stored in the buffer 44 with respect to each of stages are set as a buffer 1(52), a buffer 2(53), a buffer 3(61), and a buffer 4(46). Also, an enable signal 70 representative of a section of an input packet is indicated in FIG. 17. Alternatively, the enable signal 70 may be outputted from the second packet separating circuit 509, or may be generated by the timing generating circuit 54 from the synchronization byte 23.

CLAIMS:

1. A digital broadcasting signal receiving apparatus comprising:

a channel decoding circuit receiving transmitted digital information and demodulating the received digital information into a bit stream having a predetermined packet structure, said transmitted digital information being such that a plurality of logical channel signals constituted by video, audio, and data are multiplexed as digital information on a single bit stream having a predetermined packet format and are transmitted;

a first packet separating circuit extracting a designated packet from a bit stream outputted from said channel decoding circuit;

a source decoding circuit decoding a logical channel signal outputted from said first packet separating circuit to output the decoded logical channel as a television signal;

a second packet separating circuit extracting at least a portion of the designated packets from the bit stream outputted from said channel decoding circuit;

an output circuit outputting a bit stream outputted from said second packet separating circuit toward a recording/reproducing circuit;

an input circuit supplying a bit stream derived from said recording/reproducing circuit to said first packet separating circuit; and

a control circuit controlling operations of said first packet separating circuit and said second packet separating circuit.

17. A digital broadcasting signal receiving apparatus as claimed in claim 1 wherein:

said second packet separating circuit extracts at least the PAT packet and the PMT packet determined by the MPEG2 rule, and said packet of the video, audio, and data determined by said PMT packet; extracts a program information packet into which the contents of said video, audio, and data are described in response to an instruction issued from said control circuit; includes a transfer rate detecting circuit for detecting a transfer rate of the signal outputted from said second packet separating circuit; and interrupts the extracting operation of a preset specific packet by said second packet separating circuit in response to an instruction issued from said control circuit in such a case that said transfer rate detecting circuit detects that the transfer rate of the signal outputted by said second packet separating circuit exceeds a preset value.

18. A digital broadcasting signal receiving apparatus comprising:

an input processing circuit receiving transmitted digital information and for demodulating the received digital information into a bit stream having a predetermined packet structure, said transmitted digital information being such that a plurality of logical channel signals constituted by at least one of video, audio, and data are multiplexed as digital information on a single bit stream having a predetermined packet format and are transmitted;

a packet separating circuit extracting a designated packet from a bit stream outputted from said input processing circuit;

a packet replacing circuit replacing at least a portion of packets outputted from said packet separating circuit by a predetermined signal;

an output circuit outputting an output signal from said packet replacing circuit

inside, or outside said digital broadcasting signal receiving apparatus; and

a control circuit controlling operations of said packet separating circuit.

22. A digital broadcasting signal receiving apparatus as claimed in claim 18 wherein:

said packet separating means is constituted by a storage circuit storing therein a signal entered from said control circuit; and a selecting circuit selecting said input signal, or the signal stored in said storage circuit under control of said control circuit; wherein said packet separating circuit replaces a portion, or all of packets by the signal stored in said storage circuit under control of said control circuit.

30. A digital broadcasting signal receiving/recording/reproducing apparatus as claimed in claim 26 wherein:

said packet separating circuit is constituted by a storage circuit storing therein a signal entered from said control circuit; and a selecting circuit selecting said input signal, or the signal stored in said storage circuit under control of said control circuit; wherein said packet separating circuit replaces a portion, or all of packets by the signal stored in said storage circuit under control of said control circuit.

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L3: Entry 7 of 9 File: USPT Oct 13, 1998

DOCUMENT-IDENTIFIER: US 5822324 A
**** See image for Certificate of Correction ****
TITLE: Simulcasting digital video programs for broadcast and interactive services

Application Filing Date (1):
19951208

Brief Summary Text (28):
The preferred embodiment of the communication system utilizes a digital simulcasting system to broadcast the broadband information. A signal including multiplexed channels is transmitted simultaneously from a plurality of spaced transmitting sites. The transmitting sites propagate the signal into substantially overlapping regions of at least a major portion of the intended reception area. At the subscriber premises, a terminal device receives the transmitted signal. At least a portion of the received signal is processed to acquire a digital transport stream from a selected one of the multiplexed channels. At least a portion of the transport stream is presented, e.g. in a form that is sensorially perceptible to a user.

Detailed Description Text (63):
FIG. 7 provides a high-level functional diagram of a customer premises receiving system 30 at one subscriber's premises as well as several of the wireless system components in communication with the customer premises system. Each subscriber has a broadband service receiving antenna 38 and a cellular service antenna 39. The broadband antenna receives transmissions in the allotted microwave frequency range. The cellular service antenna 39 sends and receives various data and voice signals over cellular telephone frequency channels separate from the frequencies used for the video channels. In North America, the most common cellular system at present is Advanced Mobile Phone Service (AMPS). AMPS type cellular telephone transmissions, for example, utilize a frequency band in the 800-900 MHz range.

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L3: Entry 8 of 9 File: USPT Sep 9, 1997

DOCUMENT-IDENTIFIER: US 5666365 A
TITLE: Simulcast transmission of digital programs to shared antenna receiving systems

Application Filing Date (1):
19951106

Brief Summary Text (27):
In the preferred embodiments, the delay processing window of the delayed signal processing circuits is at least as large as the difference in arrival times of signals propagating from two separate transmitter antennae to the antenna(s) of the shared receiving system. In the exemplary systems described in detail below, the window exceeds this difference value by an amount sufficient to allow processing of multi-path delayed signals arriving after the direct transmission signal from the most distant aligned transmitting antenna.

Brief Summary Text (34):
Preferred embodiments of the shared processing circuitry are described in detail below. To summarize briefly, one type of shared circuitry processes each frequency channel to compensate for multiple time delayed copy interference and remodulates each digital transport stream into a channel for broadcast to terminals in the living units served by the shared system. In such an implementation, each terminal device includes a wireless signal processor and a digital signal processor. The wireless signal processor, typically part of an interface module connected by a cable to the shared processing circuitry, processes the received signal to select one of the channels. The wireless signal processor effectively acquires a digital multiplexed data stream from the selected channel and supplies that data stream to the digital signal processor. The digital signal processor selects packets of data relating to a selected one of the programs. The digital processing section processes the compressed, digitized data from those packets to produce signals presentable to a user. In the preferred embodiment, the digital signal processor produces signals to drive a standard television set.

Detailed Description Text (140):
If the network 1134 utilizes only one cable, then each program signal processor 1100 outputs an analog RF program signal in a different RF channel and supplies that channel signal to the one RF combiner 1445. If the network 1134 utilizes two cables, then the program signal processors are divided into two separate groups, each group feeding signals for transport on one cable. Within each group, each program signal processor 1100 outputs an analog RF program signal in a different RF channel and supplies that channel signal to the RF combiner 1445 feeding the associated one of the cables.

CLAIMS:

8. A system as in claim 7, further comprising:

a plurality of demodulators, each demodulator demodulating signals from a respective one of the multiplexed channels and supplying the demodulated signals for processing by one of the delay signal processing circuits;

a plurality of modulators for modulating the acquired single copies from the delay processing circuits into separate channels; and

a combiner for combining the separate channels into a multiplexed signal containing the separate channels for broadcast via the network.

28. A method as in claim 27, wherein the step of processing the multiple time-offset copies of said channels comprises:

separating signals containing multiple time-offset copies of each of the multiplexed channels;

processing the separate multiple time-offset copies of each channel received within the predetermined processing time window to produce the single optimized representation of the digitally multiplexed data contained in each of the multiplexed channels; and

combining the single optimized representation of the digitally multiplexed data contained in each of the multiplexed channels to form a single optimized representation of said signal including multiplexed channels for distribution.

L3: Entry 9 of 9 File: JPAB Feb 9, 2001

DOCUMENT-IDENTIFIER: JP 2001036834 A
TITLE: DIGITAL BROADCAST RECEIVER

Abstract Text (2):
SOLUTION: Desired transmission is selected from digital broadcast waves by a tuner 2. A transmission channel is digitally demodulated and a transport stream (TS hereafter) is obtained by a digital demodulating part 3. Pieces of video, sound data and control data such as program information are separated from the TS by a multiplex signal separating part 5. Pieces of the video and sound data are MPEG demodulated, a video signal and a sound signal are obtained by an MPEG decoder 6. A program list is created, displayed on a screen, a list of the channels impossible to be received is simultaneously created from the control data such as the program information and the present receivable channels and stored in a storage part 12 by a control part 11.

Application Date (1):
19990722

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Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: JP 11112954 A

L8: Entry 1 of 4 File: JPAB Apr 23, 1999

PUB-NO: JP411112954A
DOCUMENT-IDENTIFIER: JP 11112954 A
TITLE: VIDEO TELEPHONE SET AND VIDEO TELEPHONE COMMUNICATION METHOD

PUBN-DATE: April 23, 1999

INVENTOR-INFORMATION:

NAME	COUNTRY
ISHIDA, KIYOSHI	
GOTO, HIROSHI	

INT-CL (IPC): H04 N 7/14; H04 M 11/06

ABSTRACT:

PROBLEM TO BE SOLVED: To attain improvements in convenience, mobility, expandability and operability by having a camera control means for controlling the camera of a video telephone set of a communicated party, transmitting a camera control signal to the video telephone set of the communicated party by using the camera control means, receiving an image signal, according to the camera control signal from the video telephone set of the communicated party and displaying it on a display.

SOLUTION: A camera control digital signal which a camera control device controller 54 generates is inputted to a camera control interface circuit 53b by with a parallel signal, is converted into serial data, inputted to a data port of a multiple separation control part 52b, multiplexed together with voice and a video signals, and outputted to an ISDN network 57 via a digital communication line control circuit 51. An integrated type video telephone 50a of the other party receives multiplexed signals, separates them into the voice image, and data signals by a multiple separation control part 52a via a control circuit 51a, reproduces the data signals into four parallel signals and performs a condition setting of an external camera 56.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc | Clip Img | Image

☐ 2. Document ID: JP 10322671 A

L8: Entry 2 of 4 File: JPAB Dec 4, 1998

PUB-NO: JP410322671A
DOCUMENT-IDENTIFIER: JP 10322671 A
TITLE: SEPARATING DEVICE OF PACKET MULTIPLEXED IMAGE SOUND SIGNAL

PUBN-DATE: December 4, 1998

INVENTOR-INFORMATION:
NAME COUNTRY
KOMI, HIRONORI
OKU, MASUO
FUJII, YUKIO
OISHI, TOSHIHISA
TAKADA, KAZUYUKI

INT-CL (IPC): H04 N 7/08; H04 N 7/081; H04 N 7/24

ABSTRACT:

PROBLEM TO BE SOLVED: To reduce the data processing quantity in a CPU and to allocate the processing time of the CPU to processing of another system control at the time of separating a packet multiplexed image sound signal and system control data.

SOLUTION: A demodulated TS(transport stream) packet is supplied from a daodulator 1 to a filter 26, coincidence detection between the leading PID (packet ID) in every TS packet and 1st reference data from a table 27 is performed and it is decided whether the TS packet has an element of an image and sound or system control data. When it has an element, it is sent to decoders 4 and 6. When it has system control data, a filter 26 further decides whether control data should be analyzed by a CPU 10 by using the table 27, data to be analyzed is sent to the CPU 10 through RAM 9 and analyzed there, and system control is performed.

☐ 3. Document ID: JP 10228728 A

L8: Entry 3 of 4 File: JPAB Aug 25, 1998

PUB-NO: JP410228728A
DOCUMENT-IDENTIFIER: JP 10228728 A
TITLE: DIGITAL SIGNAL RECORDING METHOD AND DEVICE THEREFOR DIGITAL SIGNAL REPRODUCTION METHOD AND DEVICE THEREFOR

PUBN-DATE: August 25, 1998

INVENTOR-INFORMATION:
NAME COUNTRY
HIRAI, JUN

INT-CL (IPC): G11 B 20/10; H04 N 5/765; H04 N 5/781

ABSTRACT:

PROBLEM TO BE SOLVED: To make it possible to record and reproduce digital signals with a high image quality mode and long-time mode varying in compression rate from each other on the same disk-like recording medium.

SOLUTION: The output of a tuner 11 is separated by a sound and data separating circuit 12 to videos, sound signals and ancillary data. The video signals are compressed in a compression circuit 20 via an A/D conversion circuit 14, a Y/C sepn. circuit 15, a color demodulation circuit 16, a prefilter 18, a resample circuit 19. The sound signals are compressed in a compression circuit 40 via an A/D conversion circuit 34, a prefilter 38 and a resample circuit 39. The compression rates of this time are switched by a control signal for setting the high image quality/long-time mode. The compressed video, sound signals and ancillary data are synthesized by a multiplex circuit 41 to

serial data which are recorded on the disk-like recording medium 100 via an FIFO memory 42. At the time of reproduction, the video signals and sound signals are outputted by the procedures reverse from the above.

☐ 4. Document ID: JP 04292094 A

L8: Entry 4 of 4 File: JPAB Oct 16, 1992

PUB-NO: JP404292094A
DOCUMENT-IDENTIFIER: JP 04292094 A
TITLE: MONITORING CONTROL SYSTEM

PUBN-DATE: October 16, 1992

INVENTOR-INFORMATION:

NAME	COUNTRY
FURUYA, KENJI	

US-CL-CURRENT: 370/493
INT-CL (IPC): H04Q 9/00; G01D 21/00; H04Q 9/00; G05B 15/02

ABSTRACT:

PURPOSE: To simplify construction by enabling the monitoring by a monitor while transmitting real picture of a plant, graphic screen, and voices such as plants by multiplex.

CONSTITUTION: Plural controllers 12a to 12n outputting the state signals, video signals, and voice signals on a plant side after multiplexing processing and plural monitors 11a to 11n separating multiplex signals to be outputted from the controllers 12a to 12n so as to be outputted as the picture signal and the voice signal respectively to CRT 17a to 17n and speakers 18a to 18n, are provided. On a data way 13, the state signals, video signals or voice signals are mutually transferred between the controllers 12a to 12n and the monitors 11a to 11n, between respective controllers 12a to 12n or respective monitors 11a to 11n.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC
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Term	Documents
"3"	13438853
3S	11303
(7 NOT "3").USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	4
(L7 NOT 3).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	4

L8: Entry 1 of 4 File: JPAB Apr 23, 1999

PUB-NO: JP411112954A
DOCUMENT-IDENTIFIER: JP 11112954 A
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L8: Entry 2 of 4 File: JPAB Dec 4, 1998

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TITLE: SEPARATING DEVICE OF PACKET MULTIPLEXED IMAGE SOUND SIGNAL

PUBN-DATE: December 4, 1998

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L8: Entry 3 of 4 File: JPAB Aug 25, 1998

PUB-NO: JP410228728A
DOCUMENT-IDENTIFIER: JP 10228728 A
TITLE: DIGITAL SIGNAL RECORDING METHOD AND DEVICE THEREFOR DIGITAL SIGNAL REPRODUCTION METHOD AND DEVICE THEREFOR

PUBN-DATE: August 25, 1998

INVENTOR-INFORMATION:
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HIRAI, JUN

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L8: Entry 4 of 4 File: JPAB Oct 16, 1992

PUB-NO: JP404292094A
DOCUMENT-IDENTIFIER: JP 04292094 A
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PUBN-DATE: October 16, 1992

INVENTOR-INFORMATION:

NAME	COUNTRY
FURUYA, KENJI	

US-CL-CURRENT: 370/493
INT-CL (IPC): H04Q 9/00; G01D 21/00; H04Q 9/00; G05B 15/02

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L9: Entry 1 of 1 File: USPT Nov 22, 1994

DOCUMENT-IDENTIFIER: US 5367522 A
** See image for Certificate of Correction **
TITLE: Multimedia communicating apparatus

Application Filing Date (1):
19920219

Detailed Description Text (11):
Denoted by 19 is a multiplexing/separating unit which functions to convert a transmission voice signal from the voice encode/decode unit 6, a transmission imge signal from the video encode/decode unit 12 and data from the data I/F unit 16 into information signals in accordance with the CCITT recommendation draft H.221, multiplex those information signals in units of transmission frame by using data from the system control unit 18 and control information such as the CCITT recommendation drafts H.221 and H.242 as BAS, and further separate reception frames into component units of respective media and BAS, followed by informing them to the respective units (such as the voice encode/decode unit 6, the video encode/decode unit 12 and the data I/F unit 16).

Detailed Description Text (39):
First, the apparatus waits for a telewriting data transmission/reception start request (step S301). When the telewriting data transmission/reception start request is detected, the apparatus checks the multiplexed condition of other types of media information and determines the allocation of a transmission data channel for transmitting the telewriting data to such an extent as not deteriorating transmission quality of other types of media information as far as possible (step S302). Specifically, 16 kbps is allocated to the voice information, LSD of 1200 bps is allocated to the data information, and the remaining 45.2 kbps is allocated to the animation information as shown in FIG. 10 above, for example. Then, a BAS command "1200 bps LSD ON" is transmitted for change into the multiplexed mode determined above (step S303). Subsequently, it is judged whether the transmission/reception of the telewriting data is ended or not (step S304). Since the transmission/reception of the telewriting information is now not yet performed, the decision result in the step S304 is "NO" and, therefore, the control program goes to a step S305 to judged whether the occurrence of the transmission telewriting data is detected (step S305). If the telewriting data is detected, then it is judged whether the present transmission data channel is enough in capacity for transmitting the telewriting data or not, that is to say, whether change of the data channel is necessary or not (step S306). This judgment can be made by using, as a decision basis, a queue state of the data information, for example, such as judging whether or not the queue accumulates in excess of a certain prescribed value. If the change of the present transmission data channel is judged not necessary, then the telewriting data is transmitted over the present data channel (step S307), followed by returning to the step S304 to wait for that the transmission/reception of the telewriting information comes to an end.